no support in the specification for the range of ethylene content ("about 71% to about 75%"). Applicant respectfully traverses, as the specification as filed clearly supports the recited range.

First, it is respectfully submitted that the Action fails to discharge the PTO's burden of explaining why the claimed range is not described in the specification, especially in view of applicant's statement on page 4 of the January 25, 2000 Amendment pointing out support for that range. The Action merely contains a conclusory statement that the range is not supported, yet provides no reasoning or evidence supporting the statement, or rebutting applicant's showing.

Second, the claimed range is in fact supported. An ethylene content range of "about 67% to about 75%" is disclosed in several places (*e.g.*, page 2, lines 6-7; page 2, lines 22-23; page 13, lines 5-6; and page 14, lines 27-28). Moreover, Example 1 describes two different terpolymers having 71% ethylene (Table 1, page 7). It cannot be disputed that the range recited in claims 29-30 is wholly within the range described on pages 2, 13 and 14 (*i.e.*, "about 71% to about 75%" is wholly within "about 67% to about 75%"), and that the 71% of Example 1 is within the range as well.

While the specific phrase "about 71% to about 75%" is not set forth in the specification, that is of no moment, however, as the written description requirement of 35 USC §112 does not require *in haec verba* correspondence between words in the claims and the specification. As stated by the Court in *In re Wertheim*, 191 USPQ 90, 96 (CCPA 1976):

> The function of the description requirement is to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him; *how the specification accomplishes this is not material.* In re Smith, 481 F.2d 910, 178 USPQ 620 (CCPA 1973), and cases cited therein. *It is not necessary that the application describe the claim limitations exactly,* In re Lukach, supra [169 USPQ 795 (CCPA 1971)], but only so clearly that persons of ordinary skill in the art will recognize from the disclosure that appellants invented processes including those limitations. [Emphasis added]

The Action presents no evidence which would indicate that one of ordinary skill would not recognize that the claimed range was not part of the invention.

The courts have often found support for claim ranges within a broader disclosed range. For example, in *Wertheim, supra*, the CCPA held that a disclosed range of "25% to 60% solids," and specific embodiments of 36% and 50%, supported a claim to "35-60% solids." 191 USPQ at 98. See also *Kolmes v. World Fibers Corp.*, 41 USPQ2d 1829, 1832 (Fed. Cir. 1997) (disclosure of "4-12 turns per inch, with 8 turns per inch being preferred" supported a claim

reciting "8-12 turns per inch"). There is adequate support for claims 29-30.

35 U.S.C. §102

Reconsideration and withdrawal of the rejection of claims 1, 8, 9 and 29 under 35 U.S.C. §102(b) as being anticipated by JP 04004204A ("the Japanese abstract") are respectfully requested. Applicant respectfully submits that the Japanese abstract does not anticipate any of those claims.

The Japanese abstract appears to be directed to thermoplastic resins containing a blend of high- and low-molecular weight materials. The low molecular weight material appears to be an epoxidised ethylene/alpha-olefin/diene terpolymer. There are several differences between the reference and the rejected claims.

First, the reference lacks disclosure of the presently-claimed amounts of ethylene and alpha-olefin. Claim 1 recites a minimum ethylene content of 67% *by weight;* claim 29 recites a minimum ethylene content of 71% *by weight*[1]. In contrast, the Japanese reference discloses a maximun ethylene content of 75 *mole* %. Given that the molecular

[1]The statement at page 5 of the Amendment filed January 25, 2001 to the effect that claim 1 recites a lower limit of 67 mole% of ethylene is incorrect and is withdrawn.

weight of ethylene is about 28 g/mole, and the molecular weight of propylene (the lightest alpha-olefin recited in both the present claims and the Japanese abstract) is about 42 g/mole, a copolymer containing 75 mole % ethylene and 25 mole % propylene would contain 66.7% ethylene on a weight basis. That is lower than both 67% (claim 1) and about 71% (claim 29).

Second, the Japanese abstract does not disclose the molecular weight of the terpolymer, nor its physical state (*i.e.*, whether it is a solid at room temperature), both of which are recited in all claims. Indeed, the Action admits that no molecular weight information is given: "The [Japanese] abstract does not teach the molecular weight of the terpolymers" (final Action at 5).

Third, the Japanese abstract fails to disclose the needle penetration parameter recited in claim 9.

There is no anticipation.

35 U.S.C. §103

Reconsideration and withdrawal of the rejection of claims 10-14 under 35 U.S.C. §103(a) as being unpatentable over the Japanese abstract in view of the alleged admission at page 1, lines 22-25 of the present specification are respectfully requested.

The Japanese abstract is discussed above. As for the alleged admission, it is respectfully submitted that the statement at page 1, lines 22-25, is not an admission at all, and is certainly not prior art. Rather, it is a general statement regarding two specific patent documents (U.S. Patent Nos. 5,391,623 and 5,480,941). It is wholly inappropriate to base a rejection on an approximately 21 word general characterization of two references, when the references themselves are available to the Examiner (see IDS filed September 21, 1998), especially when the Examiner has never entered a rejection based on the underlying references. If the references themselves do not support a rejection, then nothing that is said about them after the fact can give them independent relevance or significance.

While it is true that admissions have been used against an applicant, it has generally been in the context of whether certain (usually unpublished) activity is in fact prior art. See MPEP §2129. That is completely different from the present situation. Here, both of the characterized patents were issued more than one year before the filing date of the present application, and there is no question that they are prior art.

The PTO rules require the Examiner to "cite the best references at his or her command" when making a rejection

for obviousness. 37 CFR 1.104(c)(2). There can be no serious dispute that the best references are the patents themselves, and not a brief, *post hoc* characterization of them which was made after the present invention was invented.

In view of the foregoing, it is respectfully submitted that the rejection is defective on its face, and should be withdrawn.

When the actual references underlying the alleged admission are considered for all they fairly teach, it is apparent that they do not support the rejection and the Examiner's reasoning in support thereof. Both patents are directed to masterbatch compositions having a high concentration of aramid fibers and no filler material (col. 1, line 61-col. 2, line 2). The material with which the aramid fibers are blended is said to include:

> natural rubber and synthetic rubbery compounds. Synthetic rubbery compounds can be any which are dissolved by common organic solvents and can include, among many others, polychloroprene and sulfur-modified chloroprene, hydrocarbon rubbers, butadiene-acrylonitrile copolymers, styrene butadiene rubbers, chlorosulfonated polyethylene, fluoroelastomers, polybutadiene rubbers, polyisoprene rubbers, and the like. [col. 2, lines 11-19]

There is no teaching or suggestion to blend the aramid fibers with the presently-claimed low molecular weight

copolymers or terpolymers. Neither is there such a suggestion or teaching in the Japanese abstract which, as noted above, is silent as to molecular weight. Moreover, even if one were to make the substitution posited by the Examiner, the resulting material would still not meet the claims because the ethylene content would be too low.

The combination is defective and no *prima facie* case is made out.

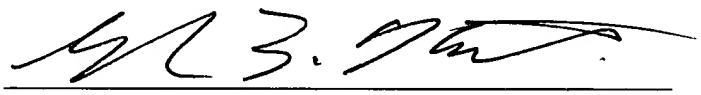
Reconsideration and withdrawal of the rejection of claims 2-7, 15-28 and 30 under 35 U.S.C. §103(a) as being unpatentable over the Japanese abstract, and further in view of Gros and the alleged admission at page 1, lines 22-25 of the present specification are respectfully requested.

The Japanese abstract and the alleged admission have been discussed previously, and applicant repeats his objection to use of the alleged admission in this rejection. As for Gros, it discloses blends of high and low molecular weight materials which are said to have increased hot and cold processability. The Action relies on Gros as teaching low molecular weight terpolymers. However, Gros does not disclose any low molecular weight polymer having the relative amounts of monomer components recited in claim 1. The disclosure of molar ratios at column 3, lines 22-36 appears to be directed to the final

low/high molecular weight blend. Moreover, Examples 3 and 4 of Gros appear to be directed to the low molecular weight materials, but in each instance, the polymer contained less ethylene than presently claimed (59 mole% in Example 3; 66 mole% in Example 4, both of which are much lower than 67% by weight). In contrast, claim 1 recites a lower limit of 67 mole%. Moreover, claim 30 specifies an ethylene content of from about 71% to about 75%. Thus, Gros' low molecular weight material cannot render obvious the present claims.

Applicants submit that the present application is now in condition for allowance. Reconsideration and favorable action are earnestly requested.

Respectfully submitted,



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PENDING CLAIMS

1. A polymer formed from monomers comprising ethylene; CH_2=CHQ wherein Q is C_1-C_8 alkyl; and optionally a non-conjugated polyene; wherein

a) ethylene is present in an amount of from 67% to about 75% by weight;

b) the non-conjugated polyene is present in an amount of from about 0% to about 30% by weight; and

c) CH_2=CHQ is present in an amount of from about 15% to about 40% by weight;

said polymer having a viscosity average molecular weight of from about 4,000 to about 30,000 and being a solid at room temperature.

2. The polymer of claim 1, wherein the non-conjugated polyene is selected from the group consisting of 5-ethylidene-2-norbornene, 1,4-hexadiene and dicyclopentadiene.

3. The polymer of claim 2, wherein Q is methyl.

4. The polymer of claim 3, wherein the polyene component is present in an amount of from about 1% to about 20% by weight.

5. The polymer of claim 4, wherein the polyene component is present in an amount of from about 3% to about 15% by weight.

6. The polymer of claim 1, wherein the CH_2=CHQ component is present in an amount of from about 20% to about 35% by weight.

7. The polymer of claim 6, wherein the CH_2=CHQ component is present in an amount of from about 22% to about 30% by weight.

8. The polymer of claim 1, wherein the polymer has a viscosity average molecular weight of from about 5,000 to about 10,000.

9. The polymer of claim 1, wherein the polymer yields about 10 mm or less in a needle penetration test.

10. A composition which comprises the polymer of claim 1, and a reinforcing agent.

11. The composition of claim 10, wherein the reinforcing agent is selected from the group consisting of aramid fibers, cotton, polyesters, fiberglass, and mixtures thereof.

12. The composition of claim 11, wherein the reinforcing agent comprises aramid fibers.

13. The composition of claim 10, wherein the reinforcing agent is present in an amount of up to about 70% by weight.

14. A composition which comprises:

a) a polymer formed from monomers comprising ethylene; CH_2=CHQ wherein Q is C_1-C_8 alkyl; and optionally a non-conjugated polyene; wherein

i) ethylene is present in an amount of from 67% to about 75% by weight;

ii) the polyene is present in an amount of from about 0% to about 30% by weight; and

iii) CH_2=CHQ is present in an amount of from about 15% to about 40% by weight;

said polymer having a viscosity average molecular weight of from about 4,000 to about 30,000 and being a solid at room temperature;

b) a reinforcing agent; and

c) a high molecular weight polymer.

15. The composition of claim 14, wherein the non-conjugated polyene is selected from the group consisting of 5-ethylidene-2-norbornene, 1,4-hexadiene and dicyclopentadiene.

16. The composition of claim 15, wherein Q is methyl.

17. The composition of claim 16, wherein the polyene component is present in an amount of from about 1% to about 20% by weight.

18. The composition of claim 17, wherein the polyene component is present in an amount of from about 3% to about 15% by weight.

19. The composition of claim 14, wherein the CH_2=CHQ component is present in an amount of from about 20% to about 35% by weight.

20. The composition of claim 19, wherein the CH_2=CHQ component is present in an amount of from about 22% to about 30% by weight.

21. The composition of claim 14, wherein the polymer of part a) has a viscosity average molecular weight of from about 5,000 to about 10,000.

22. The composition of claim 14, wherein the polymer of part a) yields about 10 mm or less in a needle penetration test.

23. The composition of claim 14, wherein the reinforcing agent is selected from the group consisting of aramid fibers, cotton, polyesters, fiberglass, and mixtures thereof.

24. The composition of claim 23, wherein the reinforcing agent comprises aramid fibers.

25. The composition of claim 14, wherein the high molecular weight polymer is selected from the group consisting of natural rubber and synthetic rubber.

26. The composition of claim 25, wherein the synthetic rubber is selected from the group consisting of ethylene/alphaolefin/nonconjugated polyene (EPDM) rubbers, styrene/butadiene rubbers, acrylonitrile/ butadiene (NBR) rubbers, polychloroprene and sulfur modified polychloroprene, and polybutadiene rubbers.

27. A moulded article made from the composition of claim 14.

28. The article of claim 27, wherein the article is selected from the group consisting of a v-belt, a timing belt, a conveyor belt, a drive belt, a hose, a seal, a diaphragm, a cable and a roll cover.

29. The polymer of claim 1, wherein ethylene is present in an amount of from about 71% to about 75% by weight.

30. The composition of claim 14, wherein ethylene is present in an amount of from about 71% to about 75% by weight in the a) component polymer.